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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/800,580 Filing Date: March 15, 2004 Appellant(s): INOUE, KENJI

> George A. Smith, Jr. For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed 4/28/09 appealing from the Office action mailed 10/31/08

Application/Control Number: 10/800,580 Page 2

Art Unit: 1794

#### (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

## (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

### (4) Status of Amendments After Final

No amendment after final has been filed.

## (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

## (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

## (8) Evidence Relied Upon

2002/0137416 Hagfors et al 9-2002

Application/Control Number: 10/800,580 Page 3

Art Unit: 1794

#### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagfors et al, U.S. Patent Application Publication 2002/0137416. Hagfors discloses a transfer belt comprising a fiber batt layer 3 which is impregnated with a polymer matrix. The polymer matrix may consist of polyurethane, Paragraph 0016. The fiber batt layer may be formed from cellulose, viscose, polyamides, (i.e. nylon), and animal fibers, among others, (paragraph 0014). Polyamide fibers are hydrophilic as disclosed at paragraph 0014 of Hagfors and in the instant specification. The impregnated fiber batt layer is abraded to expose the fibers. See paragraph 0012. With regard to the newly added limitations that substantially all of the exposed fibers are hydrophilic, example 2 of Hagfors describes an embodiment wherein the fibers differ in their dtex but both are polyamide fibers, (i.e., hydrophilic fibers). With regard to the limitation that the fibers are "capable of holding an amount of water from a wet paper web in contact with the wet paper web side surface of the transfer belt sufficient to attach the wet paper web to the transfer belt for transfer of the wet paper web from the press part to a next stage in the papermaking machine", this limitation is a statement of intended use. The structure of Hagfors is the same as the claimed structure and is capable of performing this intended use.

#### (10) Response to Argument

Art Unit: 1794

Appellant argues that the disclosure of Hagfors is clear that it is the presence of both hydrophilic and hydrophobic fibers that produces the hydrophilic and hydrophobic areas. However, while Hagfors does teach that providing the fiber web facing surface of the belt so that it has fibers with two different surface properties produces the hydrophilic and hydrophobic areas, Hagfors does not teach that the only way to provide such areas is by using both hydrophilic and hydrophobic fibers. Specifically, Hagfors teaches that the fibers in the fiber batt laver may differ from one another with regard to their polarity, hydrophilicity, electric charge, surface energy, friction properties, degree of fineness or porosity, (see abstract and paragraph 0008). By providing the fibers having the differences in surface properties, the web facing surface of the belt is provided with the areas having different properties. Therefore, Hagfors is not limited to only using a mixture of hydrophilic and hydrophobic fibers, but teaches multiple different ways of providing fibers with different surface properties, including using fibers with different fineness, (see abstract and also paragraph 0012 of Hagfors), in order to produce a web having the different areas which have different properties in order to facilitate removal of the paper web

Appellant admits that example 2, on its face, discloses an embodiment which includes all hydrophilic fibers, since Appellant acknowledges that Example 2 of Hagfors describes the use of only PA, (polyamide), fibers. However, Appellant argues that Hagfors does not anticipate the claimed invention because the disclosure of Hagfors is ambivalent and that it is likely that example 2 of Hagfors is mistaken since it includes only PA fibers but does not disclose the dtex of the third group of PA fibers. However,

Application/Control Number: 10/800,580

Art Unit: 1794

Hagfors teaches that the fibers can differ in various ways, such as denier, abrasion resistance, cross-sectional shape, etc. See paragraphs 0008 and 0015 of Hagfors. The abstract of Hagfors states that "The fibers in the fiber batt layer may differ from one another with regard to their polarity, hydrophilicity, electric charge, surface energy, friction properties, degree of fineness or porosity." Therefore, Hagfors does not require that the fibers of the batt layer differ in that one is hydrophilic and one is hydrophobic.

Further, with regard to example 2, Hagfors states that "the surface has a microroughness provided by hydrophilic PA areas of various sizes and varying roughness,
with polycarbonate urethane used as the matrix". This statement does not state that
there are different types of polymer used, but instead states that only type of fiber,
polyamide (PA) fibers, are used but that those fibers differ in size and roughness.

Paragraph 0015 teaches that using fibers of different roughness is another way of
having a differential in terms of how well the web attaches to it, in that the web detaches
from the rough portions more easily. Therefore, Hagfors is not limited to those
embodiments which disclose the use of fibers which are hydrophilic and fibers which are
hydrophobic, but instead clearly teaches that all hydrophilic fibers can be used, when
the fibers differ in a parameter such as roughness or size, in order to produce the
essential areas which differ in their surface properties.

Appellant argues that the art must be interpreted in the manner in which it would have been understood by a person skilled in the art and that an inadvertent and unintended disclosure in a reference is not an anticipation if a person skilled in the art would perceive it as a mistake. However, Hagfors clearly teaches that one way of

Application/Control Number: 10/800,580

Art Unit: 1794

achieving the desired result of a web having different areas which have different surface properties in order to facilitate detachment of the paper web from the transfer belt is to use fibers which have a different fineness. See, for example, paragraph 0012 of Hagfors. Therefore, the person of ordinary skill in the art would not have perceived any mistake in example 2, which is an example showing the use of different fiber fineness to achieve the different areas with different surface properties as discussed in paragraph 0012. Further, even if it is conceded that example 2 was in error, which it is not, the example would still anticipate the claimed invention and make sense in the context of the reference which discloses employing different fiber fineness, (i.e., fiber denier), in order to achieve the desired result of having the web facing surface of the belt have areas with different surface properties. A clear disclosure which anticipates the invention cannot be ignored, especially when it is not contrary to the entirety of the disclosure of the reference, because Appellant is of the opinion that the disclosure is in error.

Appellant argues that the error is evident because the linear density, (i.e., dtex) of the third group of PA fibers is not disclosed. However, it is not clear that this would be an error since the other two groups of PA fibers already disclose the differing linear density (dtex) of each polyamide fiber group. Further, even if there is an error, it is not clear that the error is not simply omitting the linear density (dtex) of the third group of PA fibers, rather than that the error is that the fibers which are clearly listed as being PA fibers are in fact a different type of fiber. Thus, in example 1, which discloses a mixture of hydrophilic and hydrophobic fibers, the dtex of each is included. Further, it is noted

Application/Control Number: 10/800,580

Art Unit: 1794

that in example 1, the different areas having different surface properties are clearly disclosed as coming from the "hydrophobic PE areas and hydrophilic PA areas"., (paragraph 0019), while in example 2, the resulting web facing surface is described in the following way: "the surface has a micro-roughness provided by hydrophilic PA areas of various sizes and varying roughness, with polycarbonate urethane as the matrix". If the disclosure of using all polyamide fibers was a mistake and the third fiber group was intended to be hydrophobic fiber group which was required to form a hydrophobic region on the belt surface, it would seem that this discussion of the resulting surface would refer to such fibers. The fact that it does not supports the position that the disclosure of example 2 is not in error.

Appellant argues that the interpretation of the disclosure of example 2 as being in error is supported by the Declaration of Applicant submitted on September 2, 2008. The Declaration states that in the opinion of the Declarant that the disclosure of Hagfors is vague because while example 2 only employs hydrophilic fibers, other portions of the reference refer to the use of hydrophobic and hydrophilic fibers and that therefore the person of ordinary skill in the art would have concluded that Hagfors example 2 is in error. However, as noted above, Hagfors example 2 not only refers to only using polyamide (hydrophilic fibers), but also discusses the resulting material as only having exposed PA fibers, which differ in size and roughness. Further, as noted above, the abstract states clearly that the fibers of the batt can differ in terms of polarity, hydrophilicity, electric charge, surface energy, friction properties, degree of fineness or porosity.

Art Unit: 1794

Appellant argues that the fact that Hagfors is concerned with detachment should be taken into account in interpreting the content of Hagfors' disclosure. However, as noted above, Hagfors teaches that there are different ways of providing the different areas with different surface properties so as to facilitate detachment of the paper web, including varying the fineness of the fibers. See abstract, paragraphs 0008 and 0012 and example 2 of Hagfors, which all discuss using fibers of different fineness in order to provide the areas with different surface properties on the web facing surface of the belt.

## (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Elizabeth M. Cole/

Primary Examiner, Art Unit 1794

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